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* INDIANA SINCLAIR-TIMEX NEWSLETTER *
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March-April 1992

Editor - Frank Davis
Assist - M. Felerski
Publisher-Carol Davis

This issue....

MEETINGS OF ISTUG

The April meeting will be on April 25th , 1:30 PM at the Eagledale Public Library. For those who need directions call Paul Holmgren at 317-291-6002 or Frank Davis at 317-473-8031. All meetings, unless notified otherwise are held the last Saturday of each month, at 1:30 P.M. at the Eagledale Public library. The meeting for May will be held at the same time and place on 30th of May. The meeting for June is the 27th, same time and place. For those who are new or have not been to a meeting for a while, please take some time out to join us this day. You are always welcome to bring a guest, either family or friends. ISTUG meetings are not tightly ran as a club with Roberts Rules of Order. They are for getting help with a computing problem, showing off that new hardware or software, and for finding out what is happening in computing. We do not bite, nor do we try to be gurus. Friends helping friends. See you there! As Jack Dohany once told an unruly crowd "this is supposed to be fun, not so serious!" I do agree. Does anyone want to have a club picnic this year? If so, bring it up at the next meeting or write to me about this care of the newsletter.

FWD-Editor

NEWS ABOUT VULCAN(S COMPUTER MONTHLY MAGAZINE

I recently had two conversations with Bill Ferrebee, the author of the TS column for Classic Computers in Computer Monthly. He has informed me that after the June issue they are planning on going to an all MAC and IBM format as a magazine. This seems to remind me of what happened with Computer Shopper and tends to bring back unpleasant memories. They will also be eliminating the Coco, Sanyo, TI, Commodore, Atari and Amiga columns. Seems they want to go for the bucks.

Bill has told me that there is a slight chance (after speaking with the Editors) that if enough interest is shone that they would consider putting out a separate magazine that is just devoted to the above named computers. So, folks, call or write and show some interest. Computer Monthly, P.O. Box 55886, Birmingham, AL 35255-9951, Phone 205-988-9708.

QUANTA's Feb. 1992 revisions of the Library added files to 7 disks.

Disk Name	Contents	Free Sectors
GUIDE	(Archive based Library Guides)	597
C.A.D_1	(Computer Aided Design)	312
CT_1	(Communications/Transfer) revised Nov.91	309
CT_2	(a BBS program) revised Nov.91	429
EDUC_1	(EDUCational) revised Nov.90	345
EMACS_1	(Micro EMACS V3.9p SOURCE FILES)	36
EMACS_2	(Run version. NON-SOURCE + new doc's)	704
GG_1	(General Games)	222
GG_2		330
GG_3	revised Feb.92	789
GS_1	(Games advent/Strategy)	108
GS_2		105
GS_3		75
GS_4	revised Feb.92	468
GRAF_1	(Graphics programs)	231
GRAF_2	revised Nov.90	435
KERMIT_1	(Kermit for the QL)	99
KERMIT_2		825
KERMIT_3		354
LANG_1	(Forth, C, etc) revised.Jan 92	138
MAND_1	(MANDELbrot programs) revised Nov.90	138
MAND_2	New Nov.90	12
MATHS_1	(Maths, etc)	186
MATHS_2	revised Feb.92	831
MD_1	(Misc & Demonstration) revised Nov.90	729
MD_2	New Nov.90	87
MD_3	revised Nov.91	228

Disk Name	Contents	Free Sectors
PAGE_DES	(Version 1)	60
PF_1	(Printer utilities & Fonts)	243
PF_2		222
PF_3	revised Jan.92	540
PSION_1	(PSION utilities etc)	144
PSION_2	revised Nov.90	195
PSION_3	revised Jan.92	198
PSION_4	New Nov.91	831
QDJM_1	(JM ROM decoded)	501
QDJM_2		687
QDJM_3		45
QDJM_4		225
QDJS_1	(JS ROM)	459
SP_0	(Reserved - T. TEBBY + TRAPS ONLY)	1032
SP_1	(Specialist programs)	255
SP_2	revised Jan.92	18
SP_3	revised Feb.92	246
SP_4	New Nov.90	315
SP_5	New Nov.91	330
UD_1	(Dir & copy Utilities) revised Feb.92	546
UG_1	(General Utilities)	144
UG_2	revised Nov.90	96
UG_3	revised Feb.92	162
UG_4	revised Feb.92	471
UT_1	(ToolKits/MachineCode)	201
UT_2	revised Nov.90	903

QUANTA members may get any of these disks by sending a formatted disk for each disk requested, and enough funds to cover return postage, to the U.S. Sub-Librarian.

If you wish, I can provide disks at a cost of $.50 per disk. Order 3 or more disks and postage is free.
Of course, any questions, you may call. 1-317-291-6002

U.S. Librarian
Paul Holmgren
5231 Wilton Wood Ct.
Indianapolis, IN . 46254.

OI! MAUDE SOMEONE'S GONE AND NICKED THE TIPS!!

TIPS AND HINTS TAKEN FROM VARIOUS DEFUNCT TIMEX-SINCLAIR MAGAZINES

PRESENTED BY MIKE FELERSKI

I have spent the last couple of weeks going through piles of old issues of CIM, TS-Horizons, Computers and Electronics and Creative Computing magazines in search of the ever elusive Timex-Sinclair articles, hints, etc.

Many of the magazines only carried one or two articles on the TS computers per month while instead focusing on the Atari 800 or the Spectravideo (and we all know how far those machines went)!

So, in order to reduce clutter, I decided to remove TS articles and advertizements from those magazines which covered the TS family only sparsely.

> MANY OF THE COMPUTER MAGAZINES OF THE 1980'S FOCUSED AWAY FROM THE TIMEX FAMILY OF COMPUTERS, BUT ZOOMED IN ON HOME COMPUTERS LIKE THE ATARI 800 AND THE SPECTRAVIDEO.

Presented here are some of the lost programming tips for the TS2068 and others...

□ POKE 23658,8

This command sets the TS2068 in the CAPS LOCK MODE. POKing that location with 0 returns the cursor to normal. Any other number makes the screen display unreadable.

□ POKE 23659,1

POKing this location with 1 allows the 22nd line to be used for printing. HOWEVER, a 2 must be POKEd before an INPUT command!

□ POKE 23609,N

This POKE sets off the sound chip where n is the following: 59<N<111.

The following subroutine checks to see if an attached TS2040 printer is ON or OFF. The first line of the routine is a small machine code program in a REM...

```
   1 REM FLASH CLS G THEN LN <>
9996 LET prt=USR (5+PEEK 23635
     +256*PEEK 23636)
9997 IF prt>16383 THEN PRINT
     "Printer is OFF"
9998 IF prt<=16383 THEN PRINT
     "Printer is ON"
9999 STOP
```

NOTE: You must use the TOKENS in the REM statement and NOT spell out the commands!

□ POKE 26692,83

This POKE places line edit at the top of the page. This next POKE resets the above POKE:

□ POKE 26692,75

Since the Spectrum has no FREE memory command like the TS2068, the following command will reveal that information on a Spectrum:

PRINT 65535-USR 7962

□ POKE 23561,0

Disables the key repeat facility on the TS2068.

□ POKE 23561,1

This POKE disables the entire keyboard. It is sometimes used to "Protect" software.

In the next issue of Nicked Tips I plan to include more TS2068 POKE tips and little utility programs which I have rescued. If you have any of your own tips to share please send them to:

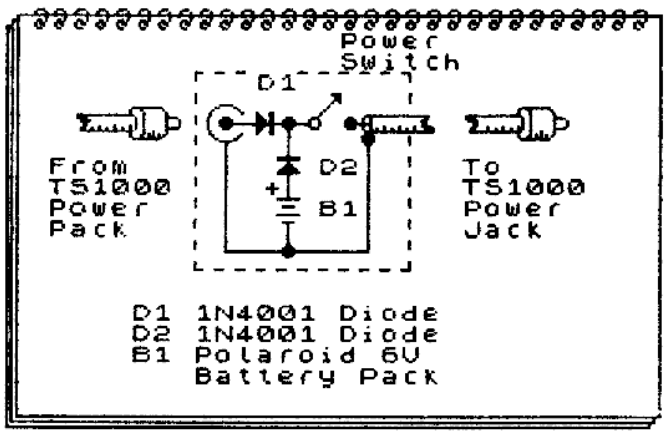
Mike Felerski, 1284 Brushwood Ave.
Cincinnati, OH 45224

More Legendary Timex-Sinclair 1000 and Sinclair ZX-81 Information

From Les Solomon's article in the
August 1983 issue of Computers & Electronics Magazine

Recreation and Additions by Mike Felerski

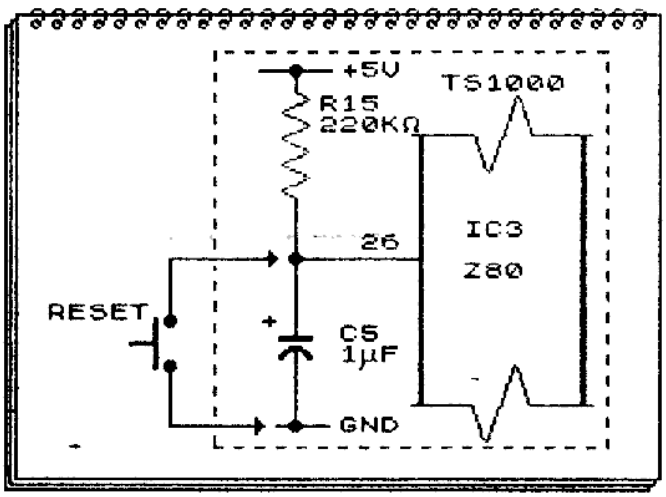
In my last article called "Quick and Easy Video Output for the ZX-81 and TS1000" I discussed Les Solomon's easy modification project to add a composite video output jack to your ZX-81/TS1000. To continue this treasure hunt of the lost Timex-Sinclair articles, I have come accross another column by Mr. Solomon called "A Truly Portable Sinclair/Timex". In it he looks at adding a Polaroid Polapack battery to his TS1000 to supply power when the power goes out! Below is my re-draw of the Solomon circuit.



So what good is a TS1000 in the dark you ask? Well let's just say the power goes out for less than a half of a minute right in the middle of entering a huge database full of information! More on the outrageous side is the thought that a TS1000 could be loaded with data, unplugged and carried to a friends house as a portable!

Within the same article, Mr. Solomon also gives us a schematic for adding a reset button to your ZX-81/TS1000. Les suggests the addition of a small piece of wire to the lead on pin 26 of IC3 (the Z80) or to the junction of R15 and C5 (see figure at top of next column).

Then connect another thin piece of wire to any ground (GND) on the computer's circuit board. Finally, connect the two wires to a small "Normally Open" push button switch. This switch could then be located anywhere on the outside of the computer's case, and there you have it!

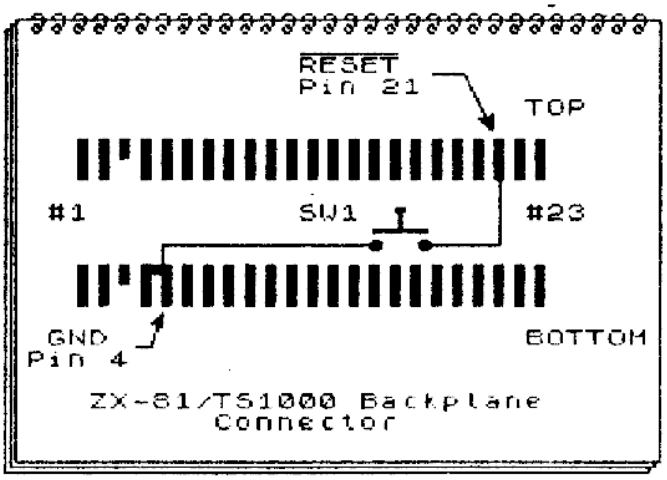


Les Solomon's "Reset Switch"

Around the time when Les wrote his reset switch article, I had also been investigating the addition of a reset function on my own.

I chose not to disrupt the inner workings of my TS1000 and TS1500 but instead decided to accomplish the task via the backplane edge connector.

My solution involved adding two small wires to the edge card connector fingers #21 on the top, and #4 on the bottom (see figure below). Later revisions resulted



ZX-81/TS1000 Backplane Connector

in the addition of such a switch to a number of my TS1000/TS1500 peripherals! -MJF

MECHANICAL AFFINITY

For the best prices on QL related items in North America and an honest attempt to fill your order contact Frank Davis at MECHANICAL AFFINITY, 513 East Main, Peru, IN 46970, or Paul Holmgren at MECHANICAL AFFINITY, 5231 Wilton Wood Ct, Indianapolis, IN 46254. Examples of prices and items to be found there! All prices quoted are in US dollars.

GOLD CARDS, disk interface, 2 meg of memory and your QL running at 16 mHz, 3 disk drives can be used, and uses the 1.44 meg, 3.2 meg drives as well as the 360K and 720K drives, and for only $500 + $10 for insurance.

TRUMP CARDS, disk interface, 896K total memory and Tool Kit 2,print spooler, screen dump, and for only $225 total cost which includes shipping.

Replacement keyboard membranes for only $15. Replace that faulty membrane and put your QL to use.

Backup QL power supplies for only $15. Original equipment power supplies, the last of their kind.

Backup QL for only $80 + $5 for shipping. U.S. QL with JSU ROM, power supply, TV cable.

Miracle disk drive adaptor to allow your Trump or Gold Card to access 4 disk drives for only $40. Requires 1.28 or higher ROM chip on your Trump Card to use. Let us know if you need to replace the Trump eprom (available for $12).

Internal battery backed clock for QL, uses lithium battery, so should be good for far longer than ordinary batteries. This plugs in where the 8032 goes, and the 8032 is then installed in it. $20 for brd & battery, or $26 installed.

NEW FOR THE Z88!

Soft carrying case for the Z88. Protect your notebook sized computer from accidents and the elements. This case is also handy for those with the Laser PC3, Compunate 3 or PC4. $10

TS1000 !

Tom Bent's improved 8K TS1000 ROM on eprom. $10.00 Requires at least 16K RAM expansion to operate, but bug corrected. $12 if we supply the special socket.

FLOPPY DISKS!

5 1/4 floppies DSDD --- $18 for 100 (360K or 720K)
5 1/4 floppies DSHD --- $20 for 100 (1.2 meg)
These prices include shipping.

TS2068!

TS2068s with cables and manual for only $50 postpaid.
TS2040 printers with 3 rolls of thermal paper for $30 postpaid.
TS2050 modems for TS2068 or TS1000 for only $35 postpaid.

We accept personal checks, money orders, company checks and cash. No charge cards please at this time. We hope to be of service to you. For a complete catalog, send a large self addressed envelope to either of the above locations.

TIMEX/sinclair BUS CONNECTIONS & Equivalents

TS2068 Rear Connector			ZX81/TS1000			PC/XT		
J1	Label	Description	J1	Label / Notes		J1	Label	Description
A-		Componentside	A-	Same				
1	GND	Signal ground	--			B1, B10, B31	GND	
2	EAR	Serial Input, HI analog	--			--	None	
3	A7R	Msb Refresh Address	--			--	(Devices supply refresh addresses.)	
4	D7	Msb Data bus	1	Same		A2	D7	
5	DZIN	NC (Externally defined)	2	RAMCS		--	None	
6	SLOT	Physical KEY	3	Same		--	None	
7	D0	Lsb Data bus	4	Same		A9	D0 -	
8	D1	Data bus	5	Same		A8	D1	'Interfacing to the IBM PC' gives
9	D2	Data bus	6	Same		A7	D2	reverse order of significance, eg:
10	D6	Data bus	7	Same		A3	D6	- A9 = D7, etc. It has other errors
11	D5	Data bus	8	Same		A4	D5	in port addressing and bit mapping.
12	D3	Data bus (pull-up)	9	Same		A6	D3	
13	D4	Data bus	10	Same		A5	D4 -	
14	INT	Maskable interrupt	11	Same		#1	See note	
15	NMI	Non-maskable interrupt	12	Same		A1	-IO CH CK	
16	HALT	Wait for interrupt (Does NOPs)	13	Same		#5	See note (OUTPUT signal)	
17	MREQ	Memory access request	14	Same		#2	See note	
18	IORQ	Input/Output or interrupt vector request	15	Same		#2	See note	
19	RD	Put data on bus	16	Same		#2	See note	
20	WR	Take data from bus	17	Same		#2	See note	
21	BUSACK	CPU yields bus control	18	Same		A11	AEN See note #3	
22	WAIT	CPU twiddles thumbs	19	Same		A10	IO CH RDY	
23	BUSRQ	Request for bus control	20	Same		#3	(DRQ1-3)	
24	RESET	Reset SYSTEM	21	Same		B2	RESET DRV	
25	M1	Program Counter address or interrupt vector request	22	Same		#2	See note	
26	RFSH	Address is refresh	23	Same		(B19)	-DACK0 (with -MREQ)	
27	EXROM	Local EXROM chip enable	--			--	None	
28	ROSCS	Local DOCK chip enable	--			--	None	
29	BE	Local memory disable	--			#6	See note	
30	IOA5	Sound chip Port A	--			B27	T/C See note #4	
31	SOUND	DAC output signal	--			--	None	
32	GND	Signal ground	--			B1, B10, B31	GND	
B-		Solderside	B-	Same				
1	GND	Signal ground	--			B1, B10, B31	GND	
2	SPKR	DTA to speaker and tape	--			--	None	
3	+15V	Unregulated power out, 1A	--			(B9)	+12VDC W/Regulator	
4	+5V	Regulated power out, 1A	1	Same		B3, B29	+5VDC	
5	----	NC	2	+9V Unreg. Pwr.		--	None	
6	SLOT	Physical KEY	3	Same		--	None	
7	0V	Power return	4	Same		B1, B10, B31	GND	
8	0V	Power return	5	Same				
9	Ō	Clock to DEVICES	6	Same				
10	A0	Lsb Address bus	7	Same		A31	A0	
11	A1	Address bus	8	Same		A30	A1	
12	A2	Address bus	9	Same		A29	A2	
13	A3	Address bus	10	Same		A28	A3	
14	A15r	Msb address bus, buffered	11	A15 Unbuffered		A16	A15	
15	A14r	Address bus, buffered	12	A14 Unbuffered		A17	A14	
16	A13r	Address bus, buffered	13	A13 Unbuffered		A18	A13	
17	A12	Address bus	14	Same		A19	A12	
18	A11	Address bus	15	Same		A20	A11	
19	A10	Address bus	16	Same		A21	A10	
20	A9	Address bus	17	Same		A22	A9	
21	A8	Address bus	18	Same		A23	A8	
22	A7	Address bus	19	Same		A24	A7	
23	A6	Address bus	20	Same		A25	A6	
24	A5	Address bus	21	Same		A26	A5	
25	A4	Address bus	22	Same		A27	A4	
26	DZOUT	NC (Externally defined)	23	ROMCS		--	None	
27	R	Red TTL monitor signal	--			--	None	
28	G	Green TTL monitor signal	--			--	None	
29	B	Blue TTL monitor signal	--			--	None	
30	BUSISO	NC (Externally defined)	--			--	None	
31	VIDEO	Monitor composite signal	--			--	None	
32	GND	Signal ground	--			B1, B10, B31	GND	

JFC Computer Technik

JÜRGEN FALKENBERG

Thaweg 36
D-7539 Ersingen
Tel: 07231-81058
Germany

EXPORT-PRICES 05/91

PRICES: All prices are export prices in DM !
POSTAGE: Please add DM 15.-- (DM 30.-- outside Europe) for postage of your order!
PAYMENT: per Eurocheque (up to DM 400.-/cheque, don't forget the EC-Card number!);
per bank cheque (please add DM 15.- bank tax!);
per bank draft (please make the draft tax-free for the benificiary) to
Postgiroamt Karlsruhe, Germany, sort code 660 100 75, account 277 21-755

Digitizing, measurement, control -- complete packages

QL BarCode EAN-BarCode-reader (A/D_1, DS_1, decode and printer software)	340.--
QL Oscilloscope complete 200 kHz oscilloscope (A/D_1, QOsc_1)	200.--
QL Scanner complete digitizer-set (A/D_1, DS_1, printeradaptor, program)	340.--
QL Scanner & BarCode complete	350.--
QL Scanner & Oscilloscope complete	350.--

Digitizing, measurement, control -- single components

QL_A/D_1 analogue interface, 200 kHz, cables, toolkit	168.--
QL_A/D_2 switching interface, 4 inputs, 4 outputs, toolkit	148.--
A/D_DA_1 control your slide projector together with A/D_2	43.--
A/D_DS_1 digitizer-/scanner sensor, with scanner program	151.--
barcode accessories, barcode-decoder and printer software	43.--
scanner accessories, printer adaptor (diff. types) & QScan-Software	43.--
A/D_PS_1 person detection sensor	87.--
A/D_RA_2 two channel relay-adaptor, max 220V 8A	61.--
A/D_RA_4 four channel relay-adaptor, max 220V 8A	87.--
A/D_RS_1 reflection sensor	43.--
A/D_SS_1 switch-sensor	18.--
A/D_TS_1 temperature sensor T = -10...100°C, dT = 1.0°C	43.--
A/D_TS_2 temperature sensor T = -15...125°C, dT = 0.5°C	60.--
Plug for A/D_1 or A/D_2 (with 20 cm cables)	3.--

Additional QL-keyboard

QL-KEYBOARD-90 interface for XT-/AT-keyboards, full compatible	139.--
CABLE & CASE for external assembly (for QIMI-Users)	22.--
XT/AT-KEYBOARD 102 keys,good quality,different national layouts (GB, D, F...)	145.--
EPSON-AT-KEYBOARD 102 keys, good quality, british layout	122.--

EPROM-accessories

EPROMMER powerful quality eprommer for SER, only german manual	288.--
cables and software for QL/Thor	51.--
EPROMMER-II powerful EPROMMER for Expansion-Bus, programs EPROMS and GALS	319.--
QL-EM16/32 eprom module for ROM-Port with switch for 16/32K eproms	26.--
QL_EB64 64K eprom card for QL-ROM sockets	17.--
QL_EB128 128K eprom card for expansion connector with through port	105.--

Further and connection accessories

QL-BUS-redirection board if your QL becomes to wide, redirects expansion bus	38.--
QL-BUS-Expander, double BUS expander, flexible connector, no driver	52.--
QL-BUS-Driver, 5 sockets, horizontal/vertical Bus-connector	113.--
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QL-Mouse-2 for QLs with D9-Ctl-connector, 2 buttons for Space & Enter/Esc	138.--
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QL-MOS-Card 96K/128K, very versatile board for eproms/static RAMs	139.--
QL-RAM-Card 512K, no wait states, very quick, no through-port	199.--

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DISA the first really professional QL-Disassembler, works interactive	69.--
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Printer Tools 1.0 use incompatible printers for text & grafics	34.--
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QOsc_1 1.3 storage oscilloscope for A/D_1, hardcopy	34.--

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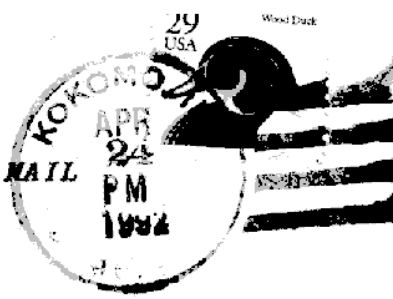

Address correction requested:

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